

Notice of Allowability

Application No.

09/908,988

Examiner

William W. Moore

Applicant(s)

OLSON ET AL.

Art Unit

1652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed September 15, 2003 and the interview of 11 December 2003.
2. ☒ The allowed claim(s) is/are 1, 3-6, 8-14, and 16-18.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
(a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No. _____.
(b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
(c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892) | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 4 <input checked="" type="checkbox"/> Interview Summary (PTO-413), Paper No. <u>idem</u> . |
| 5 <input type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____. | 6 <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

Applicant's Amendment after Final Rejection filed September 16, 2003, amending claim 4, has been entered. As claims 2, 7, 15, and 19-115 were previously cancelled, claims 1, 3-6, 8-14, and 16-18 remain in the application. The examiner's amendment to claims 1, 12, and 18 hereinbelow clarifies the structure and function of a MURF-1 product encoded by a claimed DNA segment, makes each of the claims 3-6, 8-14, and 16-18 dependent upon claim 1, and simplifies the structure of claim 18. Claims 1, 3-6, 8-14, and 16-18 are allowed herewith

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Rewrite claim 1 thus:

--- 1. An isolated DNA segment encoding a ~~murine~~ MURF-1 polypeptide either having,

(i) the amino acid sequence set forth in SEQ ID NO:2, or,

(ii) a variant of the amino acid sequence set forth in SEQ ID NO:2 capable of binding a microtubule wherein the variant is encoded by a nucleic acid sequence that hybridizes to SEQ ID NO:1, from position 199 through position 1296, inclusive, under conditions of 10mM Tris-HCl (pH 8.3), 50mM KCl, and 1.5 μ M MgCl₂ at a temperature of 72°C. ---

Rewrite claim 12 thus:

--- 12. A host cell comprising a DNA segment ~~that encodes a murine MURF-1~~ polypeptide of claim 1, wherein said DNA segment comprises a promoter heterologous to the murine MURF-1 polypeptide coding region set forth in SEQ ID NO:1. ---

Rewrite claim 18 thus:

--- 18. A method of ~~using a host cell~~ producing a MURF-1 polypeptide comprising,
(i) transforming a host cell with an expression cassette comprising a ~~polynucleotide~~
~~encoding a murine MURF-1, MURF-2 or MURF-3 polypeptide~~ the DNA segment of
claim 1 and a promoter active in said host cell, ~~said promoter~~ and capable of
5 directing the expression of said polypeptide ~~said method comprising~~, and,
(ii) culturing the host cell under conditions suitable for the expression of said ~~murine~~
~~MURF-1, MURF-2 or MURF-3 polypeptide~~. ---

Authorization for this examiner's amendment was given in a telephone interview with Mr. Stephen Highlander on December 11, 2003.

10 The following is an examiner's statement of reasons for allowance:

Support for the above examiner's amendment is found in the specification at, *inter alia*, pages 3-6, 14-19, 27, 77, 78, 81-85 and Figures 3A, 3B, 4-A-4G, 5A-5C, and 7A-7D. The co-inventors herein were the first to discover a ring finger protein expressed in skeletal and cardiac muscle cells that binds to microtubules and both regulates the
15 stabilization of microtubules and the formation of microfilaments. The hybridization conditions recited in clause (ii) of claim 1 as amended hereinabove are adequate to identify nucleic acid sequences capable of encoding MURF-1 variants that bind tubulin according to the teachings of the specification. Various kinds of alterations of a MURF-1 amino acid sequence are disclosed and the specifications teaches how to determine,
20 with assays exemplified in Figures 3A, 3B, 4-A-4G, 5A-5C, and 7A-7D, which MURF-1 variants will meet the functional limitation of clause (ii) of claim 1 as amended above: binding tubulin.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably
25 accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Conclusion

5 In view of the need for the accelerated publication of allowed patent applications, **see**
65 Fed. Reg. 54604 (8 September 2000) **and** 1328 Off. Gaz. Pat. Office 77 (19
September 2000), Applicant is advised that post allowance communications such as
Amendments under 37 CFR 1.132(a) and Information Disclosure Statements that comply
with 37 CFR 1.97(d)&(e) which are submitted prior to payment of the issue fee should
10 be not be sent to the examiner or Group 1600 but should either be **faxed** directly to the
Office of Publications at **703-305-8755**, or **sent by express mail** directly to **BOX**
ISSUE FEE, in order to be timely considered and entered. Such submissions may also be
made concurrent with payment of the issue fee.

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to William W. Moore whose telephone number is
703.308.0583 until about January 21, 2004, and will be 571.272.0933 thereafter.
15 The examiner can normally be reached between 9:00AM and 5:30PM EST. If attempts
to reach the examiner by telephone are unsuccessful, the examiner's supervisor,
Ponnathapura Achutamurthy, can be reached at 703.308.3804 until about January 21,
2004, and at 571.272.0928 thereafter. The fax phone numbers for all communications
for the organization where this application or proceeding is assigned is 703.872.9306.
20 Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the receptionist whose telephone number is 703.308.0196.

William W. Moore
December 11, 2003



NASHAAT T. NASHED PHD.
PRIMARY EXAMINER